

10/589561

1/59 IAP11 Rec'd PCT/PTO 16 AUG 2006

SEQUENCE LISTING

<110> FIVE PRIME THERAPEUTICS, INC.

<120> NOVEL APO2L AND IL-24 POLYPEPTIDES, POLYNUCLEOTIDES,
AND METHODS OF THEIR USE

<130> 8940-0037.00304

<140> PCT/US05/005221

<141> 2005-02-18

<150> 60/647,013

<151> 2005-01-27

<150> 60/546,385

<151> 2004-02-20

<160> 237

<170> PatentIn Ver. 3.3

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 Ser Gly His Ser Phe Leu Ser Asn Leu His Leu Arg Asn Gly Glu Leu
 115 120 125
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 Gly Glu Leu Val Ile His Glu Lys Gly Phe Tyr Tyr Ile Tyr Ser Gln
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 Thr Tyr Phe Arg Phe Gln Glu Glu Ile Lys Glu Asn Thr Lys Asn Asp
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 Lys Gln Met Val Gln Tyr Ile Tyr Lys Tyr Thr Ser Tyr Pro Asp Pro
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 Ile Leu Leu Met Lys Ser Ala Arg Asn Ser Cys Trp Ser Lys Asp Ala
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100 105 110
Glu Asn Thr Lys Asn Asp Lys Gln Met Val Gln Tyr Ile Tyr Lys Tyr
115 120 125
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130 135 140
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145 150 155 160
Gly Ile Phe Glu Leu Lys Glu Asn Asp Arg Ile Phe Val Ser Val Thr
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Lys Trp Gln Leu Arg Gln Leu Val Arg Lys Met Ile Leu Arg Thr Ser
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Glu Glu Thr Ile Ser Thr Val Gln Glu Lys Gln Gln Asn Ile Ser Pro
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Leu Val Arg Glu Arg Gly Pro Gln Arg Val Ala Ala His Ile Thr Gly
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Thr Arg Gly Arg Ser Asn Thr Leu Ser Ser Pro Asn Ser Lys Asn Glu
130 135 140

Lys Ala Leu Gly Arg Lys Ile Asn Ser Trp Glu Ser Ser Arg Ser Gly
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His Ser Phe Leu Ser Asn Leu His Leu Arg Asn Gly Glu Leu Val Ile
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His Glu Lys Gly Phe Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe
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Gln Glu Glu Ile Lys Glu Asn Thr Lys Asn Asp Lys Gln Met Val Gln
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Tyr Ile Tyr Lys Tyr Thr Ser Tyr Pro Asp Pro Ile Leu Leu Met Lys
210 215 220

Ser Ala Arg Asn Ser Cys Trp Ser Lys Asp Ala Glu Tyr Gly Leu Tyr
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Ser Ile Tyr Gln Gly Gly Ile Phe Glu Leu Lys Glu Asn Asp Arg Ile
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Phe Val Ser Val Thr Asn Glu His Leu Ile Asp Met Asp His Glu Ala
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Ser Gln Ala
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Pro Val Thr Glu
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Leu Ala Ala Leu
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<212> PRT
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Cys

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Leu Ala Thr Pro
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Leu

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Ile Pro

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Val Phe Leu His Val Leu His Ser
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<400> 112
 Met Val Arg Met Val Pro Val Leu Leu Ser Leu Leu Leu Leu Gly
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Pro Ala Val Pro
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<400> 113
 Met Val Arg Met Val Pro Val Leu Leu Ser Leu Leu Leu Leu Gly
 1 5 10 15

Pro Ala Val Pro Gln
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<210> 114
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<400> 114
 Met Val Arg Met Val Pro Val Leu Leu Ser Leu Leu Leu Leu Gly
 1 5 10 15

Pro

<210> 115
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<400> 115
 Met Arg Ser Ala Ala Val Leu Ala Leu Leu Leu Cys Ala Gly Gln Val
 1 5 10 15

Thr Ala

<210> 116
 <211> 15
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 <213> Homo sapiens

<400> 116
 Met Arg Ser Ala Ala Val Leu Ala Leu Leu Leu Cys Ala Gly Gln
 1 5 10 15

<210> 117
 <211> 14
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 <213> Homo sapiens

<400> 117
 Met Arg Ser Ala Ala Val Leu Ala Leu Leu Leu Cys Ala Gly
 1 5 10

<210> 118
 <211> 26
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<400> 118
 Met Ala Arg Ser Asn Leu Pro Leu Ala Leu Gly Leu Ala Leu Val Ala
 1 5 10 15

Phe Cys Leu Leu Ala Leu Pro Arg Asp Ala
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<400> 119
Met Ala Arg Ser Asn Leu Pro Leu Ala Leu Gly Leu Ala Leu Val Ala
1 5 10 15

Phe Cys

<210> 120
<211> 20
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<400> 120
Met Ala Arg Ser Asn Leu Pro Leu Ala Leu Gly Leu Ala Leu Val Ala
1 5 10 15

Phe Cys Leu Leu
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<210> 121
<211> 28
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<213> Homo sapiens

<400> 121
Met Ala Arg Ser Asn Leu Pro Leu Ala Leu Gly Leu Ala Leu Val Ala
1 5 10 15

Phe Cys Leu Leu Ala Leu Pro Arg Asp Ala Arg Ala
20 25

<210> 122
<211> 21
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<213> Homo sapiens

<400> 122
Met Ala Arg Ser Asn Leu Pro Leu Ala Leu Gly Leu Ala Leu Val Ala
1 5 10 15

Phe Cys Leu Leu Ala
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<210> 123
 <211> 23
 <212> PRT
 <213> Homo sapiens

<400> 123
 Met Ala Arg Ser Asn Leu Pro Leu Ala Leu Gly Leu Ala Leu Val Ala
 1 5 10 15
 Phe Cys Leu Leu Ala Leu Pro
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<210> 124
 <211> 22
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 <213> Homo sapiens

<400> 124
 Met Met Lys Thr Leu Leu Leu Phe Val Gly Leu Leu Leu Thr Trp Glu
 1 5 10 15
 Ser Gly Gln Val Leu Gly
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<210> 125
 <211> 18
 <212> PRT
 <213> Homo sapiens

<400> 125
 Met Met Lys Thr Leu Leu Leu Phe Val Gly Leu Leu Leu Thr Trp Glu
 1 5 10 15
 Ser Gly

<210> 126
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 126
 Met Met Lys Thr Leu Leu Leu Phe Val Gly Leu Leu Leu Thr
 1 5 10

<210> 127
 <211> 24
 <212> PRT
 <213> Homo sapiens

<400> 127
 Met Asp Gly Ala Met Gly Pro Arg Gly Leu Leu Leu Cys Met Tyr Leu
 1 5 10 15

Val Ser Leu Leu Ile Leu Gln Ala
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<210> 128
<211> 29
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<213> Homo sapiens

<400> 128
Met Asp Gly Ala Met Gly Pro Arg Gly Leu Leu Leu Cys Met Tyr Leu
1 5 10 15

Val Ser Leu Leu Ile Leu Gln Ala Met Pro Ala Leu Gly
20 25

<210> 129
<211> 30
<212> PRT
<213> Homo sapiens

<400> 129
Met Asp Gly Ala Met Gly Pro Arg Gly Leu Leu Leu Cys Met Tyr Leu
1 5 10 15

Val Ser Leu Leu Ile Leu Gln Ala Met Pro Ala Leu Gly Ser
20 25 30

<210> 130
<211> 23
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<213> Homo sapiens

<400> 130
Met Asp Gly Ala Met Gly Pro Arg Gly Leu Leu Leu Cys Met Tyr Leu
1 5 10 15

Val Ser Leu Leu Ile Leu Gln
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<210> 131
<211> 31
<212> PRT
<213> Homo sapiens

<400> 131
Met Asp Gly Ala Met Gly Pro Arg Gly Leu Leu Leu Cys Met Tyr Leu
1 5 10 15

Val Ser Leu Leu Ile Leu Gln Ala Met Pro Ala Leu Gly Ser Ala
20 25 30

<210> 132
 <211> 22
 <212> PRT
 <213> Homo sapiens

<400> 132
 Met Lys Val Leu Ala Ala Gly Val Val Pro Leu Leu Leu Val Leu His
 1 5 10 15
 Trp Lys His Gly Ala Gly
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<210> 133
 <211> 23
 <212> PRT
 <213> Homo sapiens

<400> 133
 Met Lys Val Leu Ala Ala Gly Val Val Pro Leu Leu Leu Val Leu His
 1 5 10 15
 Trp Lys His Gly Ala Gly Ser
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<210> 134
 <211> 18
 <212> PRT
 <213> Homo sapiens

<400> 134
 Met Ser Leu Ser Ala Phe Thr Leu Phe Leu Ala Leu Ile Gly Gly Thr
 1 5 10 15
 Ser Gly

<210> 135
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 135
 Met Ser Leu Ser Ala Phe Thr Leu Phe Leu Ala Leu Ile Gly Gly
 1 5 10 15

<210> 136
 <211> 17
 <212> PRT
 <213> Homo sapiens

<400> 136
 Met Ser Leu Ser Ala Phe Thr Leu Phe Leu Ala Leu Ile Gly Gly Thr
 1 5 10 15

Ser

<210> 137
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 137
 Met Ser Leu Ser Ala Phe Thr Leu Phe Leu Ala Leu Ile Gly
 1 5 10

<210> 138
 <211> 18
 <212> PRT
 <213> Homo sapiens

<400> 138
 Met Lys Leu Leu Met Val Leu Met Leu Ala Ala Leu Ser Gln His Cys
 1 5 10 15

Tyr Ala

<210> 139
 <211> 30
 <212> PRT
 <213> Homo sapiens

<400> 139
 Met Gln Ser Val Gln Ser Thr Ser Phe Cys Leu Arg Lys Gln Cys Leu
 1 5 10 15

Cys Leu Thr Phe Leu Leu Leu His Leu Leu Gly Gln Val Ala
 20 25 30

<210> 140
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 140
 Met Gln Ser Val Gln Ser Thr Ser Phe Cys Leu Arg Lys Gln Cys Leu
 1 5 10 15

Cys Leu Thr Phe Leu Leu Leu His Leu Leu Gly Gln Val Ala Ala Thr
 20 25 30

<210> 141
 <211> 28
 <212> PRT
 <213> Homo sapiens

<400> 141

Met Gln Ser Val Gln Ser Thr Ser Phe Cys Leu Arg Lys Gln Cys Leu
 1 5 10 15

Cys Leu Thr Phe Leu Leu Leu His Leu Leu Gly Gln
 20 25

<210> 142

<211> 27

<212> PRT

<213> Homo sapiens

<400> 142

Met Gln Ser Val Gln Ser Thr Ser Phe Cys Leu Arg Lys Gln Cys Leu
 1 5 10 15

Cys Leu Thr Phe Leu Leu Leu His Leu Leu Gly
 20 25

<210> 143

<211> 31

<212> PRT

<213> Homo sapiens

<400> 143

Met Gln Ser Val Gln Ser Thr Ser Phe Cys Leu Arg Lys Gln Cys Leu
 1 5 10 15

Cys Leu Thr Phe Leu Leu Leu His Leu Leu Gly Gln Val Ala Ala
 20 25 30

<210> 144

<211> 26

<212> PRT

<213> Homo sapiens

<400> 144

Met Ala Arg Gly Gly Arg Gly Arg Arg Leu Gly Leu Ala Leu Gly Leu
 1 5 10 15

Leu Leu Ala Leu Val Leu Ala Pro Arg Val
 20 25

<210> 145

<211> 22

<212> PRT

<213> Homo sapiens

<400> 145

Met Ala Arg Gly Gly Arg Gly Arg Arg Leu Gly Leu Ala Leu Gly Leu
 1 5 10 15

Leu Leu Ala Leu Val Leu
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<210> 146
<211> 29
<212> PRT
<213> Homo sapiens

<400> 146
Met Ala Arg Gly Gly Arg Gly Arg Arg Leu Gly Leu Ala Leu Gly Leu
1 5 10 15

Leu Leu Ala Leu Val Leu Ala Pro Arg Val Leu Arg Ala
20 25

<210> 147
<211> 24
<212> PRT
<213> Homo sapiens

<400> 147
Met Ala Arg Gly Gly Arg Gly Arg Arg Leu Gly Leu Ala Leu Gly Leu
1 5 10 15

Leu Leu Ala Leu Val Leu Ala Pro
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<210> 148
<211> 23
<212> PRT
<213> Homo sapiens

<400> 148
Met Ala Arg Gly Gly Arg Gly Arg Arg Leu Gly Leu Ala Leu Gly Leu
1 5 10 15

Leu Leu Ala Leu Val Leu Ala
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<210> 149
<211> 25
<212> PRT
<213> Homo sapiens

<400> 149
Met Arg Leu Gly Pro Arg Thr Ala Ala Leu Gly Leu Leu Leu Leu Cys
1 5 10 15

Ala Ala Ala Ala Gly Ala Gly Lys Ala
20 25

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<210> 150
<211> 19
<212> PRT
<213> Homo sapiens
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<400> 150
Met Arg Leu Gly Pro Arg Thr Ala Ala Leu Gly Leu Leu Leu Leu Cys
1 5 10 15

Ala Ala Ala

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<210> 151
<211> 22
<212> PRT
<213> Homo sapiens
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<400> 151
Met Arg Leu Gly Pro Arg Thr Ala Ala Leu Gly Leu Leu Leu Leu Cys
1 5 10 15

Ala Ala Ala Ala Gly Ala
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<210> 152
<211> 18
<212> PRT
<213> Homo sapiens
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<400> 152
Met Arg Leu Gly Pro Arg Thr Ala Ala Leu Gly Leu Leu Leu Leu Cys
1 5 10 15

Ala Ala

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<210> 153
<211> 20
<212> PRT
<213> Homo sapiens
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<400> 153
Met Arg Leu Gly Pro Arg Thr Ala Ala Leu Gly Leu Leu Leu Leu Cys
1 5 10 15

Ala Ala Ala Ala
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<210> 154
<211> 21
<212> PRT
<213> Homo sapiens
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<400> 154

Met Arg Leu Gly Pro Arg Thr Ala Ala Leu Gly Leu Leu Leu Leu Cys
 1 5 10 15

Ala Ala Ala Ala Gly
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<210> 155

<211> 23

<212> PRT

<213> Homo sapiens

<400> 155

Met Arg Leu Gly Pro Arg Thr Ala Ala Leu Gly Leu Leu Leu Leu Cys
 1 5 10 15

Ala Ala Ala Ala Gly Ala Gly
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<210> 156

<211> 19

<212> PRT

<213> Homo sapiens

<400> 156

Met Ala Trp Phe Ala Leu Tyr Leu Leu Ser Leu Leu Trp Ala Thr Ala
 1 5 10 15

Gly Thr Ser

<210> 157

<211> 18

<212> PRT

<213> Homo sapiens

<400> 157

Met Ala Trp Phe Ala Leu Tyr Leu Leu Ser Leu Leu Trp Ala Thr Ala
 1 5 10 15

Gly Thr

<210> 158

<211> 20

<212> PRT

<213> Homo sapiens

<400> 158

Met Ala Trp Phe Ala Leu Tyr Leu Leu Ser Leu Leu Trp Ala Thr Ala
 1 5 10 15

Gly Thr Ser Thr
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<400> 159
Met Ala Trp Phe Ala Leu Tyr Leu Leu Ser Leu Leu Trp Ala Thr Ala
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Gly Thr Ser Thr Gln Thr Gln Ser
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<210> 160
<211> 16
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<213> Homo sapiens
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<400> 160
Met Ala Trp Phe Ala Leu Tyr Leu Leu Ser Leu Leu Trp Ala Thr Ala
1 5 10 15

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<210> 161
<211> 17
<212> PRT
<213> Homo sapiens
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<400> 161
Met Ala Trp Phe Ala Leu Tyr Leu Leu Ser Leu Leu Trp Ala Thr Ala
1 5 10 15

Gly

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<210> 162
<211> 14
<212> PRT
<213> Homo sapiens
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<400> 162
Met Ala Trp Phe Ala Leu Tyr Leu Leu Ser Leu Leu Trp Ala
1 5 10

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<210> 163
<211> 17
<212> PRT
<213> Homo sapiens
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<400> 163
Met His Leu Leu Leu Phe Gln Leu Leu Val Leu Leu Pro Leu Gly Lys
1 5 10 15

Thr

<210> 164
 <211> 18
 <212> PRT
 <213> Homo sapiens

<400> 164
 Met Pro Leu Gly Leu Leu Trp Leu Gly Leu Ala Leu Leu Gly Ala Leu
 1 5 10 15

His Ala

<210> 165
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 165
 Met Pro Leu Gly Leu Leu Trp Leu Gly Leu Ala Leu Leu Gly Ala Leu
 1 5 10 15

His Ala Gln Ala
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<210> 166
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 166
 Met Pro Leu Gly Leu Leu Trp Leu Gly Leu Ala Leu Leu Gly Ala
 1 5 10 15

<210> 167
 <211> 29
 <212> PRT
 <213> Homo sapiens

<400> 167
 Met Arg His Asn Trp Thr Pro Asp Leu Ser Pro Leu Trp Val Leu Leu
 1 5 10 15

Leu Cys Ala His Val Val Thr Leu Leu Val Arg Ala Thr
 20 25

<210> 168
 <211> 24
 <212> PRT
 <213> Homo sapiens

<400> 168

Met Arg His Asn Trp Thr Pro Asp Leu Ser Pro Leu Trp Val Leu Leu
 1 5 10 15

Leu Cys Ala His Val Val Thr Leu
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<210> 169

<211> 28

<212> PRT

<213> Homo sapiens

<400> 169

Met Arg His Asn Trp Thr Pro Asp Leu Ser Pro Leu Trp Val Leu Leu
 1 5 10 15

Leu Cys Ala His Val Val Thr Leu Leu Val Arg Ala
 20 25

<210> 170

<211> 19

<212> PRT

<213> Homo sapiens

<400> 170

Met Leu Pro Leu Thr Met Thr Val Leu Ile Leu Leu Leu Leu Pro Thr
 1 5 10 15

Gly Gln Ala

<210> 171

<211> 18

<212> PRT

<213> Homo sapiens

<400> 171

Met Leu Pro Leu Thr Met Thr Val Leu Ile Leu Leu Leu Leu Pro Thr
 1 5 10 15

Gly Gln

<210> 172

<211> 21

<212> PRT

<213> Homo sapiens

<400> 172

Met Leu Pro Leu Thr Met Thr Val Leu Ile Leu Leu Leu Leu Pro Thr
 1 5 10 15

Gly Gln Ala Ala Pro
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<210> 173
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 173
 Met Thr Ser Ile Leu Thr Val Leu Ile Cys Leu Gly Leu Ser Leu
 1 5 10 15

<210> 174
 <211> 26
 <212> PRT
 <213> Homo sapiens

<400> 174
 Met Glu Asn Pro Ser Pro Ala Ala Ala Leu Gly Lys Ala Leu Cys Ala
 1 5 10 15

Leu Leu Leu Ala Thr Leu Gly Ala Ala Gly
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<210> 175
 <211> 25
 <212> PRT
 <213> Homo sapiens

<400> 175
 Met Glu Asn Pro Ser Pro Ala Ala Ala Leu Gly Lys Ala Leu Cys Ala
 1 5 10 15

Leu Leu Leu Ala Thr Leu Gly Ala Ala
 20 25

<210> 176
 <211> 24
 <212> PRT
 <213> Homo sapiens

<400> 176
 Met Glu Asn Pro Ser Pro Ala Ala Ala Leu Gly Lys Ala Leu Cys Ala
 1 5 10 15

Leu Leu Leu Ala Thr Leu Gly Ala
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<210> 177
 <211> 28
 <212> PRT
 <213> Homo sapiens

<400> 177
 Met Glu Asn Pro Ser Pro Ala Ala Ala Leu Gly Lys Ala Leu Cys Ala
 1 5 10 15

Leu Leu Leu Ala Thr Leu Gly Ala Ala Gly Gln Pro
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<210> 178
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 178
 Met Lys Gly Trp Gly Trp Leu Ala Leu Leu Leu Gly Ala Leu Leu Gly
 1 5 10 15

Thr Ala Trp Ala
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<210> 179
 <211> 18
 <212> PRT
 <213> Homo sapiens

<400> 179
 Met Lys Gly Trp Gly Trp Leu Ala Leu Leu Leu Gly Ala Leu Leu Gly
 1 5 10 15

Thr Ala

<210> 180
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 <212> PRT
 <213> Homo sapiens

<400> 180
 Met Lys Gly Trp Gly Trp Leu Ala Leu Leu Leu Gly Ala Leu Leu Gly
 1 5 10 15

<210> 181
 <211> 24
 <212> PRT
 <213> Homo sapiens

<400> 181
 Met Arg Ala Pro Gly Cys Gly Arg Leu Val Leu Pro Leu Leu Leu
 1 5 10 15

Ala Ala Ala Ala Leu Ala Glu Gly
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<210> 182
 <211> 19
 <212> PRT
 <213> Homo sapiens

<400> 182
 Met Arg Ala Pro Gly Cys Gly Arg Leu Val Leu Pro Leu Leu Leu
 1 5 10 15

Ala Ala Ala

<210> 183
 <211> 22
 <212> PRT
 <213> Homo sapiens

<400> 183
 Met Arg Ala Pro Gly Cys Gly Arg Leu Val Leu Pro Leu Leu Leu
 1 5 10 15

Ala Ala Ala Ala Leu Ala
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<210> 184
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 184
 Met Arg Ala Pro Gly Cys Gly Arg Leu Val Leu Pro Leu Leu Leu
 1 5 10 15

Ala Ala Ala Ala
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<210> 185
 <211> 26
 <212> PRT
 <213> Homo sapiens

<400> 185
 Met Arg Ala Pro Gly Cys Gly Arg Leu Val Leu Pro Leu Leu Leu
 1 5 10 15

Ala Ala Ala Ala Leu Ala Glu Gly Asp Ala
 20 25

<210> 186
 <211> 21
 <212> PRT
 <213> Homo sapiens

<400> 186

Met Arg Ala Pro Gly Cys Gly Arg Leu Val Leu Pro Leu Leu Leu Leu
 1 5 10 15

Ala Ala Ala Ala Leu
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<210> 187

<211> 18

<212> PRT

<213> Homo sapiens

<400> 187

Met Ser Leu Gly Gln Ser Ala Cys Leu Phe Leu Ser Ile Ala Arg Ser
 1 5 10 15

Arg Ser

<210> 188

<211> 18

<212> PRT

<213> Homo sapiens

<400> 188

Met Gln Arg Leu Gly Ala Thr Leu Leu Cys Leu Leu Leu Ala Ala Ala
 1 5 10 15

Val Pro

<210> 189

<211> 19

<212> PRT

<213> Homo sapiens

<400> 189

Met Gln Arg Leu Gly Ala Thr Leu Leu Cys Leu Leu Leu Ala Ala Ala
 1 5 10 15

Val Pro Thr

<210> 190

<211> 22

<212> PRT

<213> Homo sapiens

<400> 190

Met Gln Arg Leu Gly Ala Thr Leu Leu Cys Leu Leu Leu Ala Ala Ala
 1 5 10 15

Val Pro Thr Ala Pro Ala
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<210> 191
 <211> 16
 <212> PRT
 <213> Homo sapiens

<400> 191
 Met Gln Arg Leu Gly Ala Thr Leu Leu Cys Leu Leu Leu Ala Ala Ala
 1 5 10 15

<210> 192
 <211> 21
 <212> PRT
 <213> Homo sapiens

<400> 192
 Met Gln Arg Leu Gly Ala Thr Leu Leu Cys Leu Leu Leu Ala Ala Ala
 1 5 10 15

Val Pro Thr Ala Pro
 20

<210> 193
 <211> 26
 <212> PRT
 <213> Homo sapiens

<400> 193
 Met Ser Ala Ser Lys Ile Pro Leu Phe Lys Met Lys Asp Leu Ile Leu
 1 5 10 15

Ile Leu Cys Leu Leu Glu Met Ser Phe Ala
 20 25

<210> 194
 <211> 28
 <212> PRT
 <213> Homo sapiens

<400> 194
 Met Ser Ala Ser Lys Ile Pro Leu Phe Lys Met Lys Asp Leu Ile Leu
 1 5 10 15

Ile Leu Cys Leu Leu Glu Met Ser Phe Ala Val Pro
 20 25

<210> 195
 <211> 18
 <212> PRT
 <213> Homo sapiens

<400> 195
 Met Glu Met Phe Gln Gly Leu Leu Leu Leu Leu Leu Ser Met Gly
 1 5 10 15

Gly Thr

<210> 196
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 196
 Met Glu Met Phe Gln Gly Leu Leu Leu Leu Leu Leu Ser Met Gly
 1 5 10 15

Gly Thr Trp Ala
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<210> 197
 <211> 16
 <212> PRT
 <213> Homo sapiens

<400> 197
 Met Glu Met Phe Gln Gly Leu Leu Leu Leu Leu Leu Ser Met Gly
 1 5 10 15

<210> 198
 <211> 18
 <212> PRT
 <213> Homo sapiens

<400> 198
 Met Thr Met Arg Ser Leu Leu Arg Thr Pro Phe Leu Cys Gly Leu Leu
 1 5 10 15

Trp Ala

<210> 199
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 199
 Met Thr Met Arg Ser Leu Leu Arg Thr Pro Phe Leu Cys Gly Leu Leu
 1 5 10 15

Trp Ala Phe Cys
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<210> 200
 <211> 26
 <212> PRT
 <213> Homo sapiens

<400> 200
 Met Thr Met Arg Ser Leu Leu Arg Thr Pro Phe Leu Cys Gly Leu Leu
 1 5 10 15
 Trp Ala Phe Cys Ala Pro Gly Ala Arg Ala
 20 25

<210> 201
 <211> 23
 <212> PRT
 <213> Homo sapiens

<400> 201
 Met Thr Met Arg Ser Leu Leu Arg Thr Pro Phe Leu Cys Gly Leu Leu
 1 5 10 15
 Trp Ala Phe Cys Ala Pro Gly
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<210> 202
 <211> 13
 <212> PRT
 <213> Homo sapiens

<400> 202
 Met Leu Leu Leu Leu Thr Leu Ala Leu Leu Gly Gly Pro
 1 5 10

<210> 203
 <211> 16
 <212> PRT
 <213> Homo sapiens

<400> 203
 Met Leu Leu Leu Leu Thr Leu Ala Leu Leu Gly Gly Pro Thr Trp Ala
 1 5 10 15

<210> 204
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 204
 Met Leu Leu Leu Leu Thr Leu Ala Leu Leu Gly Gly Pro Thr
 1 5 10

<210> 205
 <211> 17
 <212> PRT
 <213> Homo sapiens

<400> 205
 Met Leu Leu Leu Leu Thr Leu Ala Leu Leu Gly Gly Pro Thr Trp Ala
 1 5 10 15

Gly

<210> 206
 <211> 25
 <212> PRT
 <213> Homo sapiens

<400> 206
 Met Glu Ala Ala Pro Ser Arg Phe Met Phe Leu Leu Phe Leu Leu Thr
 1 5 10 15

Cys Glu Leu Ala Ala Glu Val Ala Ala
 20 25

<210> 207
 <211> 21
 <212> PRT
 <213> Homo sapiens

<400> 207
 Met Glu Ala Ala Pro Ser Arg Phe Met Phe Leu Leu Phe Leu Leu Thr
 1 5 10 15

Cys Glu Leu Ala Ala
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<210> 208
 <211> 18
 <212> PRT
 <213> Homo sapiens

<400> 208
 Met Pro Pro Phe Leu Leu Leu Thr Cys Leu Phe Ile Thr Gly Thr Ser
 1 5 10 15

Val Ser

<210> 209
 <211> 16
 <212> PRT
 <213> Homo sapiens

<400> 209

Met Pro Pro Phe Leu Leu Leu Thr Cys Leu Phe Ile Thr Gly Thr Ser
 1 5 10 15

<210> 210

<211> 15

<212> PRT

<213> Homo sapiens

<400> 210

Met Pro Pro Phe Leu Leu Leu Thr Cys Leu Phe Ile Thr Gly Thr
 1 5 10 15

<210> 211

<211> 21

<212> PRT

<213> Homo sapiens

<400> 211

Met Gly Pro Val Arg Leu Gly Ile Leu Leu Phe Leu Phe Leu Ala Val
 1 5 10 15

His Glu Ala Trp Ala
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<210> 212

<211> 29

<212> PRT

<213> Homo sapiens

<400> 212

Met Arg His Asn Trp Thr Pro Asp Leu Ser Pro Leu Trp Val Leu Leu
 1 5 10 15

Leu Cys Ala His Val Val Thr Leu Leu Val Arg Ala Thr
 20 25

<210> 213

<211> 24

<212> PRT

<213> Homo sapiens

<400> 213

Met Arg His Asn Trp Thr Pro Asp Leu Ser Pro Leu Trp Val Leu Leu
 1 5 10 15

Leu Cys Ala His Val Val Thr Leu
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<210> 214

<211> 28

<212> PRT

<213> Homo sapiens

<400> 214

Met Arg His Asn Trp Thr Pro Asp Leu Ser Pro Leu Trp Val Leu Leu
 1 5 10 15

Leu Cys Ala His Val Val Thr Leu Leu Val Arg Ala
 20 25

<210> 215

<211> 23

<212> PRT

<213> Homo sapiens

<400> 215

Met Glu Ile Cys Arg Gly Leu Arg Ser His Leu Ile Thr Leu Leu Leu
 1 5 10 15

Phe Leu Phe His Ser Glu Thr
 20

<210> 216

<211> 25

<212> PRT

<213> Homo sapiens

<400> 216

Met Glu Ile Cys Arg Gly Leu Arg Ser His Leu Ile Thr Leu Leu Leu
 1 5 10 15

Phe Leu Phe His Ser Glu Thr Ile Cys
 20 25

<210> 217

<211> 32

<212> PRT

<213> Homo sapiens

<400> 217

Met Trp Ala Pro Arg Cys Arg Arg Phe Trp Ser Arg Trp Glu Gln Val
 1 5 10 15

Ala Ala Leu Leu Leu Leu Leu Leu Leu Gly Val Pro Pro Arg Ser
 20 25 30

<210> 218

<211> 34

<212> PRT

<213> Homo sapiens

<400> 218

Met Trp Ala Pro Arg Cys Arg Arg Phe Trp Ser Arg Trp Glu Gln Val
 1 5 10 15

Ala Ala Leu Leu Leu Leu Leu Leu Gly Val Pro Pro Arg Ser
20 25 30

Leu Ala

<210> 219

<211> 29

<212> PRT

<213> Homo sapiens

<400> 219

<400> 219
Met Trp Ala Pro Arg Cys Arg Arg Phe Trp Ser Arg Trp Glu Gln Val
1 5 10 15

Ala Ala Leu Leu Leu Leu Leu Leu Leu Gly Val Pro
20 25

<210> 220

<211> 30

<212> PRT

<213> Homo sapiens

<400> 220

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Met Trp Ala Pro Arg Cys Arg Arg Phe Trp Ser Arg Trp Glu Gln Val
1 5 10 15

Ala Ala Leu Leu Leu Leu Leu Leu Leu Gly Val Pro Pro
20 25 30

<210> 221

<211> 27

<212> PRT

<213> Homo sapiens

<400> 221

<400> 221
Met Trp Ala Pro Arg Cys Arg Arg Phe Trp Ser Arg Trp Glu Gln Val
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Ala Ala Leu Leu Leu Leu Leu Leu Leu Gly
20 25

<210> 222

<211> 26

<212> PRT

<213> Homo sapiens

<400> 222

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Met Trp Cys Ala Ser Pro Val Ala Val Val Ala Phe Cys Ala Gly Leu
1 5 10 15

Leu Val Ser His Pro Val Leu Thr Gln Gly
20 25

<210> 223
 <211> 24
 <212> PRT
 <213> Homo sapiens

<400> 223
 Met Trp Cys Ala Ser Pro Val Ala Val Val Ala Phe Cys Ala Gly Leu
 1 5 10 15
 Leu Val Ser His Pro Val Leu Thr
 20

<210> 224
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 224
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24

<210> 225
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 225
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23

<210> 226
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 226
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21

<210> 227
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 227
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23

<210> 228
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 228
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22

<210> 229
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
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 primer

<400> 229
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19

<210> 230
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 <212> DNA
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<220>
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 primer

<400> 230
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34

<210> 231
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 231
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21

<210> 232
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 232
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21

<210> 233
<211> 168
<212> PRT
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<400> 233
Val Arg Glu Arg Gly Pro Gln Arg Val Ala Ala His Ile Thr Gly Thr
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Arg Gly Arg Ser Asn Thr Leu Ser Ser Pro Asn Ser Lys Asn Glu Lys
20 25 30
Ala Leu Gly Arg Lys Ile Asn Ser Trp Glu Ser Ser Arg Ser Gly His
35 40 45
Ser Phe Leu Ser Asn Leu His Leu Arg Asn Gly Glu Leu Val Ile His
50 55 60
Glu Lys Gly Phe Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe Gln
65 70 75 80
Glu Glu Ile Lys Glu Asn Thr Lys Asn Asp Lys Gln Met Val Gln Tyr
85 90 95
Ile Tyr Lys Tyr Thr Ser Tyr Pro Asp Pro Ile Leu Leu Met Lys Ser
100 105 110
Ala Arg Asn Ser Cys Trp Ser Lys Asp Ala Glu Tyr Gly Leu Tyr Ser
115 120 125
Ile Tyr Gln Gly Gly Ile Phe Glu Leu Lys Glu Asn Asp Arg Ile Phe
130 135 140
Val Ser Val Thr Asn Glu His Leu Ile Asp Met Asp His Glu Ala Ser
145 150 155 160
Phe Phe Gly Ala Phe Leu Val Gly
165

<210> 234
 <211> 84
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

<400> 234
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 gaaccctggg catctgcaga attc 84

<210> 235
 <211> 123
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

<400> 235
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 ctcggtctcg attctacgcg taccgggtcat catcaccatc accatcacca tggaggacag 120
 tga 123

<210> 236
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 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 6xHis tag

<400> 236
 His His His His His His
 1 5

<210> 237
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 8xHis tag

<400> 237
 His His His His His His His
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